

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A gasification reactor vessel for fly stream gasification of fuels, residues, and wastes with an oxygen containing oxidizing agent at pressures between ambient pressure and 80 bar and at temperatures between 1000°C and 1600°C, comprising:

a pressure shell, said pressure shell having an encircling body wall and shell ends at each of opposite ends of the body wall, said pressure shell encasing a reaction space of said gasification reactor vessel and absorbing a differential pressure between the pressure in the reactor space and the external ambient pressure;

a plurality of cooling ducts extending around an outer surface of said body wall, said ducts being fixedly connected to said outer surface, interior spaces of said cooling ducts communicating with said outer surface, said ducts being arranged and dimensioned for providing cooling along essentially an entire length of said body wall between said shell ends;

a fluid supply conduit communicating with said cooling ducts;

a fluid discharge conduit communicating with said cooling ducts; and

a refractory lining of a refractory encircling having first and second layers concentrically arranged on an inner surface of said encircling body wall.

2. (original) A gasification reactor vessel according to claim 1, wherein each cooling duct comprises a pair of spaced webs fixedly connected at common edges of each to said body wall outer surface, and an arcuate segment joining opposite edges of said webs.

3. (original) A gasification reactor vessel according to claim 2, wherein the webs of each duct are fixedly connected to said body wall outer surface with welded connections.

4. (withdrawn - previously presented) A gasification reactor vessel according to claim 2, wherein said ducts extend longitudinally along said body wall, said fluid supply and fluid discharge conduits are annular and located, respectively, at one of two opposite ends of said shell body.

5. (withdrawn - previously presented) A gasification reactor vessel according to claim 4, wherein a circumferential space separates adjacent ones of said ducts on said body wall outer surface.

6. (withdrawn) A gasification reactor vessel according to claim 4, wherein said ducts are arrayed circularly around said body wall outer surface with each duct in abutment with ducts adjacent thereto.

7. (original) A gasification reactor vessel according to claim 2, wherein said ducts extend circularly around said body wall outer surface, said fluid supply and fluid discharge conduits being annular and disposed, respectively, at one of two opposite ends of said shell body.

8. (original) A gasification reactor vessel according to claim 7, wherein said ducts are arranged obliquely of a central axis of said body wall.

9. (original) A gasification reactor vessel according to claim 8, wherein said ducts extend in a spiral course around said body wall outer surface.

10. (original) A gasification reactor vessel according to claim 7, wherein each duct encircles said body outer wall surface spaced from ducts adjacent thereto.

11. (canceled)

12. (currently amended) A gasification reactor vessel according to claim ~~11~~ 1, wherein one of said first and second layers of the refractory material is at least one of a ceramic and polytetrafluoroethylene.

13.-16. (canceled)

17. (previously presented) A gasification reactor vessel according to claim 2, wherein said ducts extend in a direction having at least a longitudinal component along said body wall, said fluid supply and fluid discharge conduits are annular and located, respectively, at one of two opposite ends of said shell body.

18. (withdrawn - previously presented) A gasification reactor vessel according to claim 4, wherein a circumferential space separates adjacent ones of said ducts on said body wall outer surface.